



# RADIAL CEMENT BOND LOG

Company **KERR-MCGEE OIL AND GAS**  
 Well **ANDERSON MEL GU 1**  
 Field **WATTENBERG**  
 County **WELD** State **COLORADO**

Location: **API # : 05123084220000**  
**SW SW 1100' FSL 1180' FWL**  
**SEC 33 TWP 2N RGE 66W**  
 Permanent Datum **GROUND LEVEL** Elevation **4976'**  
 Log Measured From **KELLY BUSHING = 10'**  
 Drilling Measured From **KELLY BUSHING**  
 Other Services **N A**  
 Elevation **K.B. 4986'**  
**D.F. 4985'**  
**G.L. 4976'**

Date **8 DEC 2015**

Run Number **ONE**  
 Depth Driller **8110'**  
 Depth Logger **4400'**  
 Bottom Logged Interval **4400'**  
 Top Log Interval **SURFACE**  
 Open Hole Size **7 7/8"**  
 Type Fluid **WATER**  
 Density / Viscosity **8.3 #**  
 Max. Recorded Temp. **N/A**  
 Estimated Cement Top **SEE LOG**  
 Time Well Ready **N/A**  
 Time Logger on Bottom **N/A**  
 Equipment Number **W-203**  
 Location **AULT COLORADO**  
 Recorded By **DEVEN DELAP JR**  
 Witnessed By **NATE WINDHOLZ**

Borehole Record  
 Bit From To Size Weight From To

Casing Record  
 Surface String **8.875"** **24#** **SURFACE** **200**  
 Prot. String  
 Production String **4.5"** **11.6#** **SURFACE** **T.D.**  
 Liner

>>> Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

## Comments

FREE PIPE READING = 82 mV

LOG CORRELATED TO IPS RADIAL BOND LOG DATED 23 NOVEMBER 2015

THANK YOU FOR CHOOSING CUTTERS WIRELINE SERVICE

## Calibration Report

Database File: **anderson\_mel\_gu\_1.db**  
 Dataset Pathname: **pass7**  
 Dataset Creation: **Tue Dec 08 12:43:43 2015 by Log 7.0 B1**

## Gamma Ray Calibration Report

Serial Number:	110254	
Tool Model:	275D_INC	
Performed:	Sun Jun 13 13:33:21 1993	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

## Inclinometer Calibration Report

Performed:	Sun Jun 13 13:33:21 1993				
	Low Read.	High Read.	Low Ref.	High Ref.	
X Accelerometer	0.00	1.00	0.00	1.00	gee
Y Accelerometer	0.00	1.00	0.00	1.00	gee
Z Accelerometer	0.00	1.00	0.00	1.00	gee

## Segmented Cement Bond Log Calibration Report

Serial Number:	110217	
Tool Model:	Probe	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	223.642	ft

Master Calibration, performed Tue Dec 08 12:22:56 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.619	0.000	81.196	131.200	0.000
CAL	0.000	0.749				
5'	0.000	0.500	0.000	81.196	162.515	0.000
SUM						
S1	0.000	0.625	0.000	100.000	159.997	0.000
S2	0.000	0.657	0.000	100.000	152.132	0.000
S3	0.000	0.693	0.000	100.000	144.263	0.000
S4	0.000	0.677	0.000	100.000	147.739	0.000
S5	0.000	0.614	0.000	100.000	162.957	0.000
S6	0.000	0.558	0.000	100.000	179.327	0.000
S7	0.000	0.541	0.000	100.000	184.817	0.000
S8	0.000	0.570	0.000	100.000	175.335	0.000

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.749	1.000	0.000

Air Zero Calibration, performed Tue Dec 08 10:38:13 2015:




	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

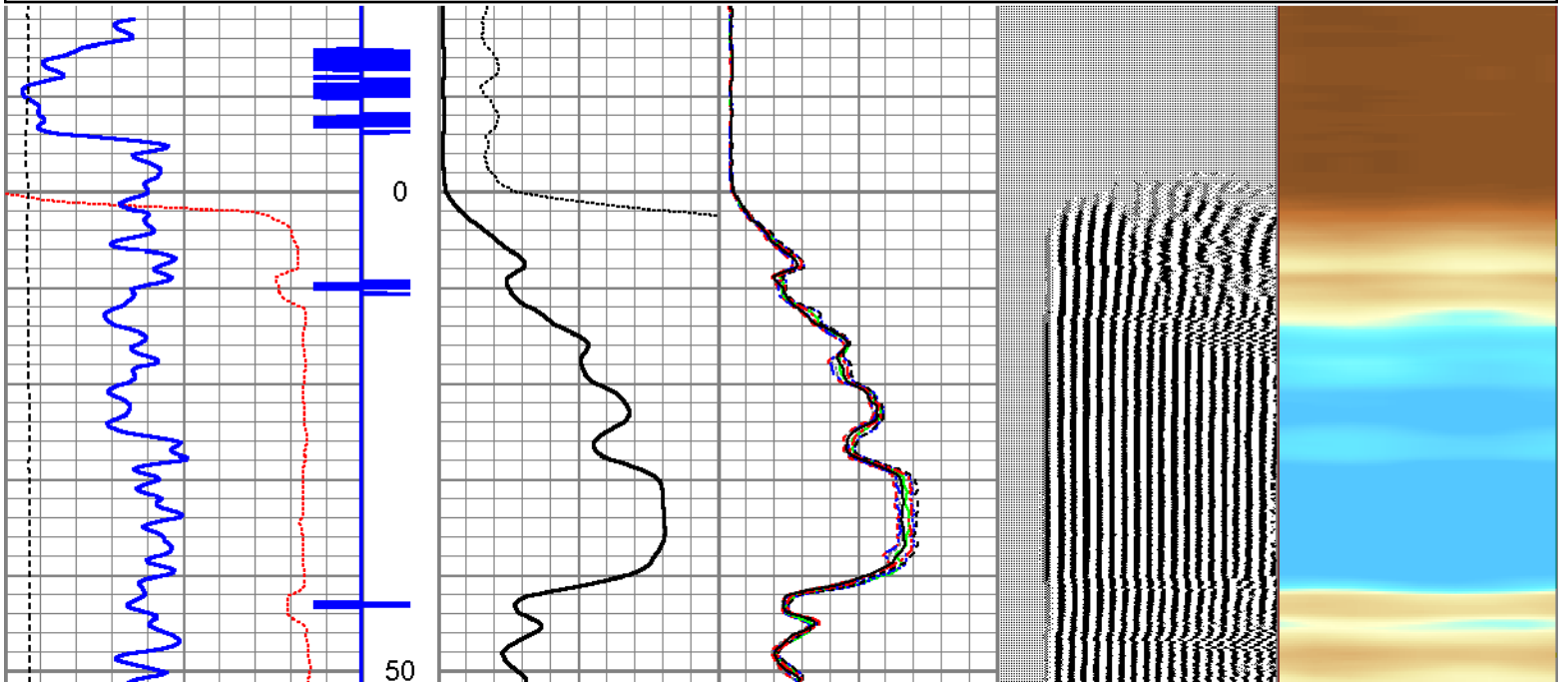


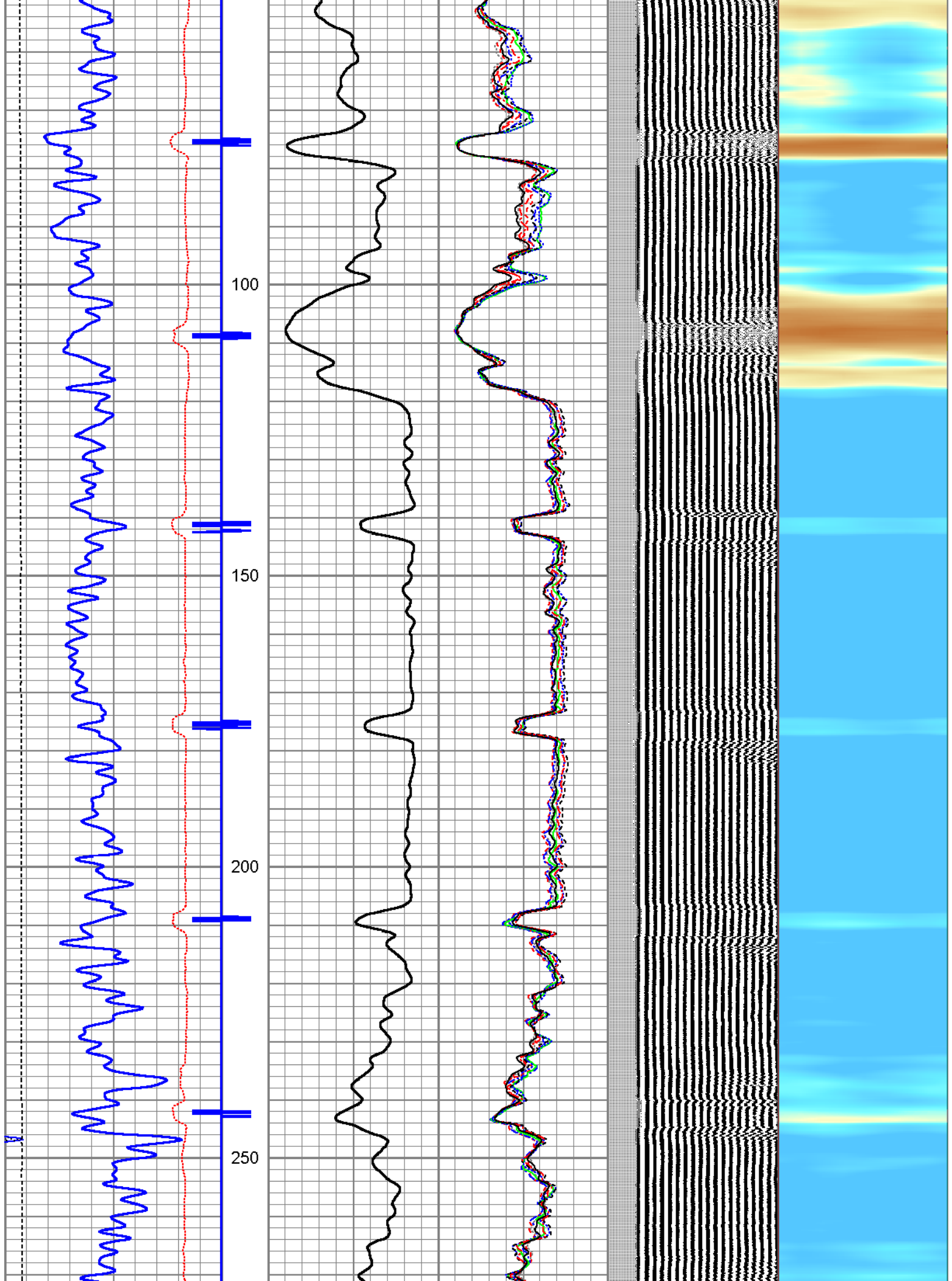
## MAIN PASS

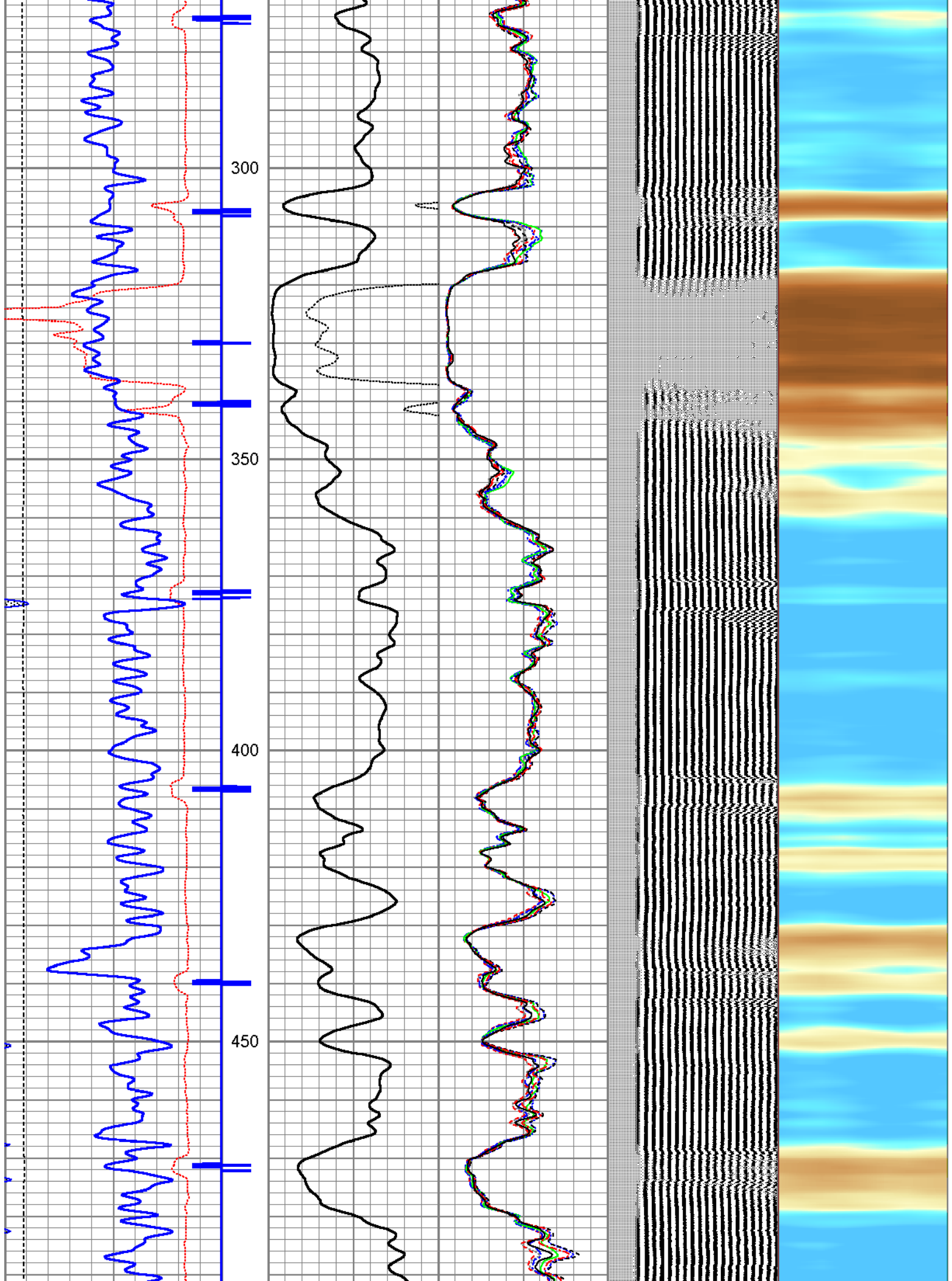
5" = 100'

Database File: anderson\_mel\_gu\_1.db  
 Dataset Pathname: pass7  
 Presentation Format: scbl4\_5  
 Dataset Creation: Tue Dec 08 12:43:43 2015 by Log 7.0 B1  
 Charted by: Depth in Feet scaled 1:240

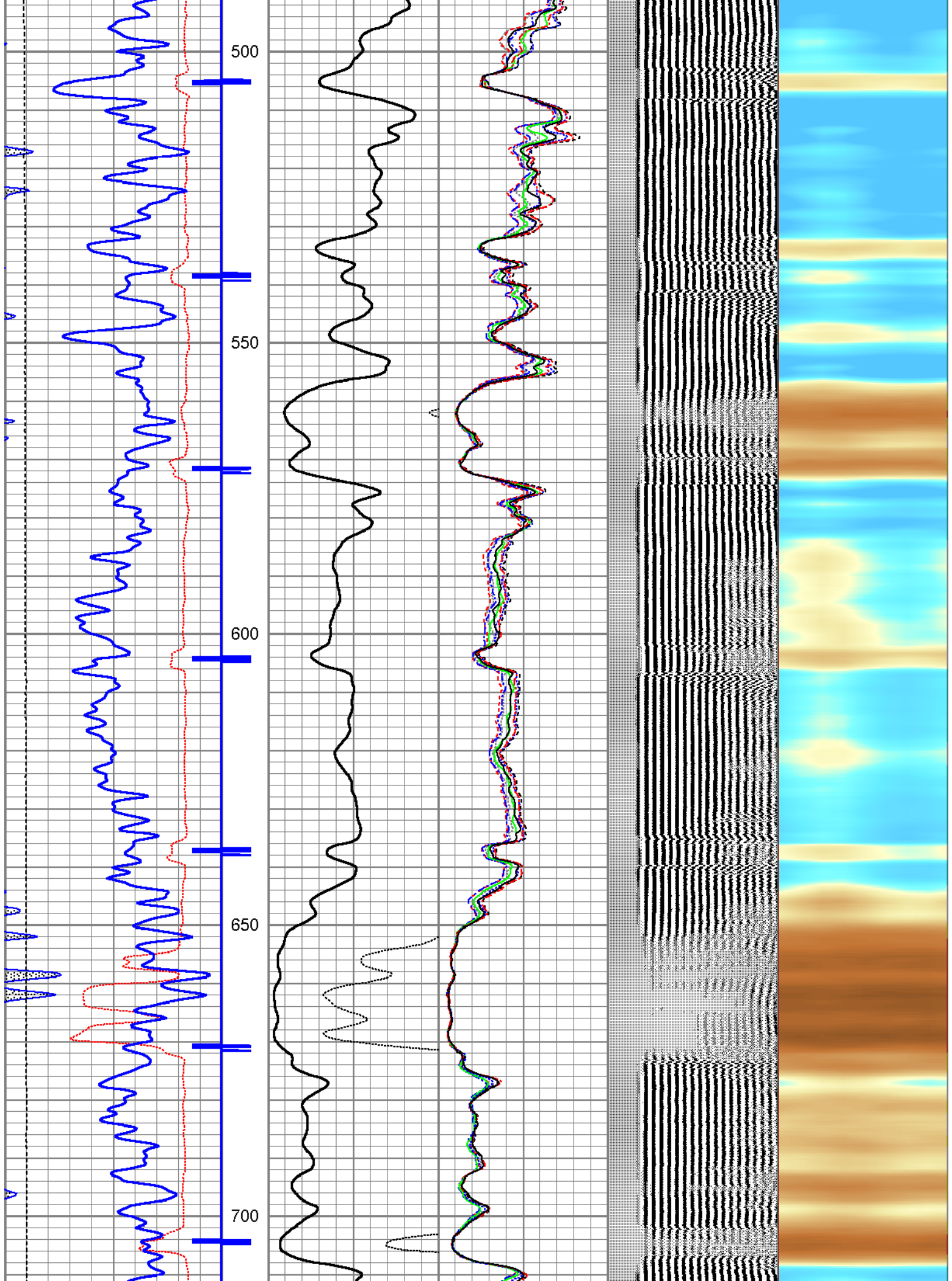
325	TT (usec)	225	Amplitude	-5	AMPS2	150	200	VDL	1200	Cement Map		
0	GR (GAPI)	200	(mV)	100	-5	AMPS3	150				1	80
0	LTEN (lb)	3000	Amplified Amplitude	-5	AMPS4	150	Free Pipe Section					
CCL			(mV)	10	-5	AMPS5	150					
					-5	AMPS6	150					
					-5	AMPS7	150					
					-5	AMPS8	150					
					-5	AMPS1	150					

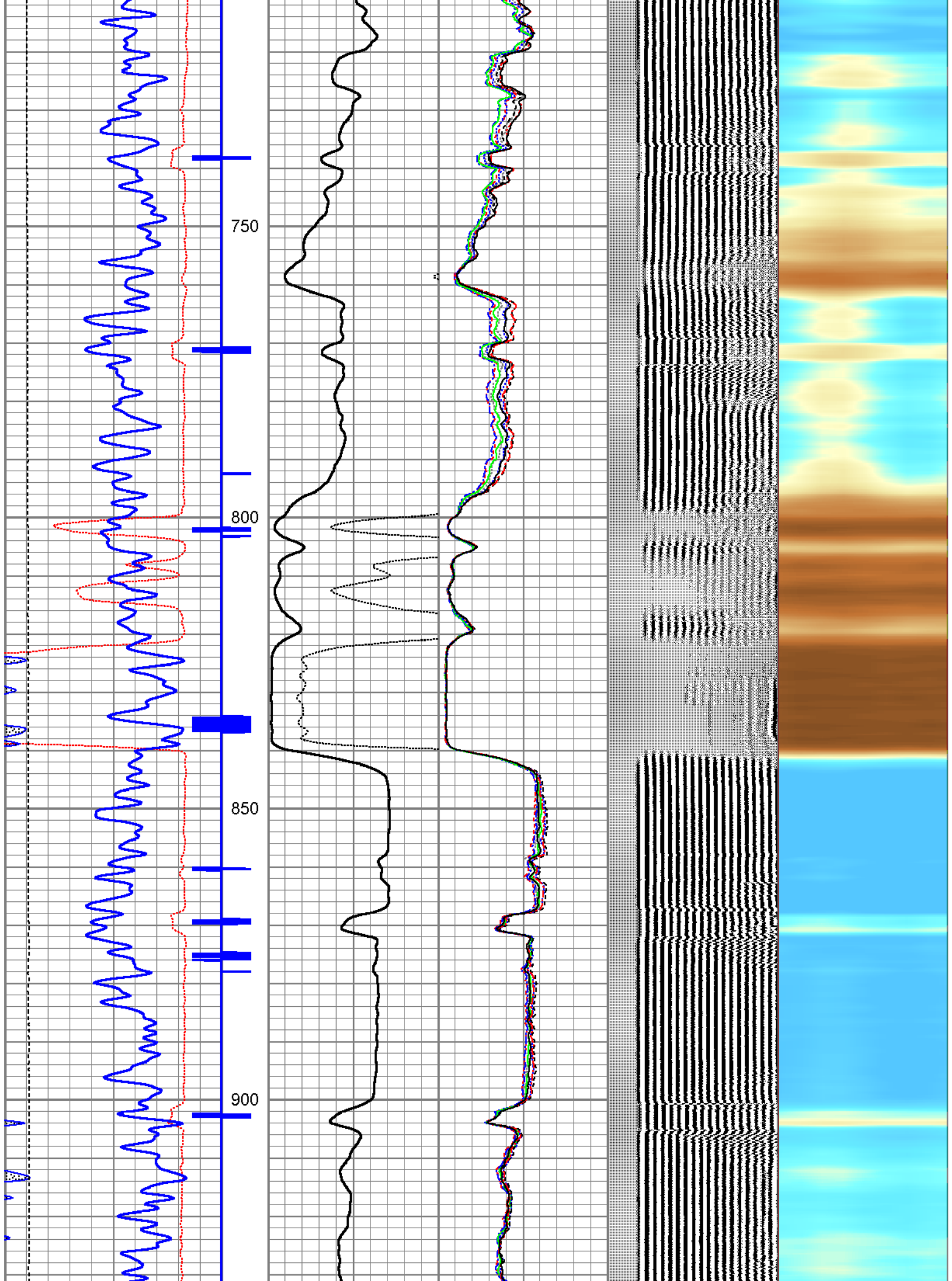


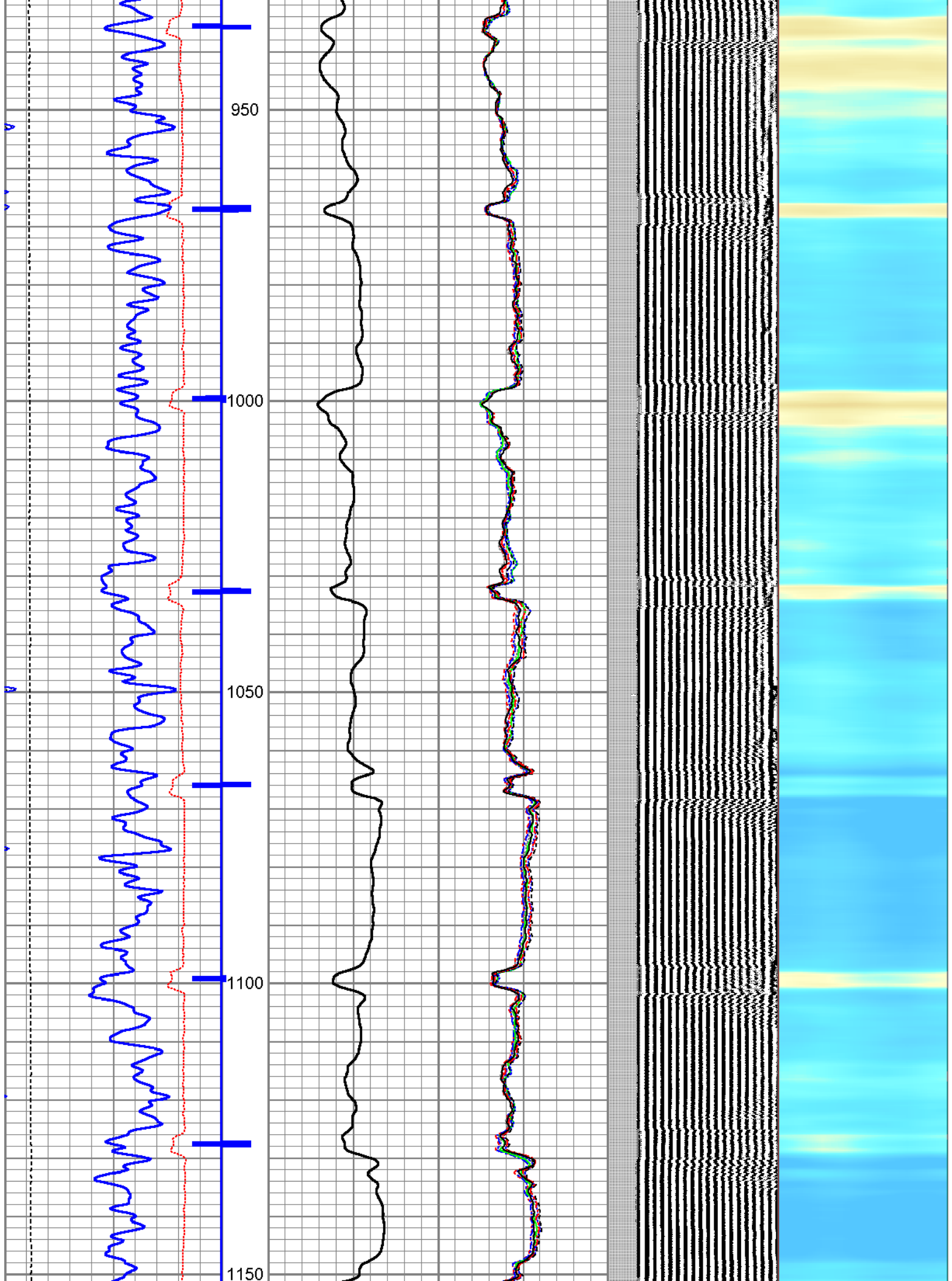




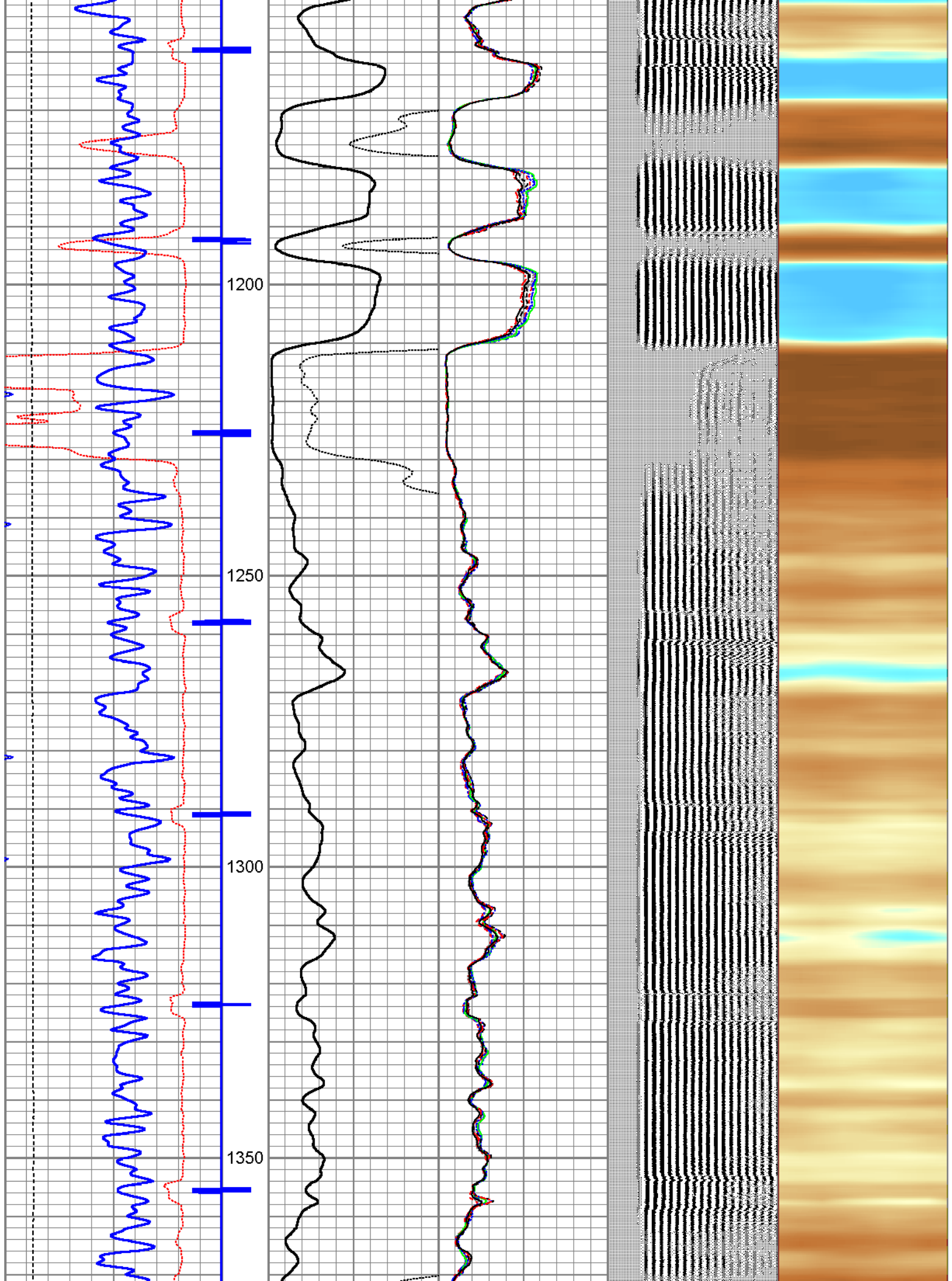


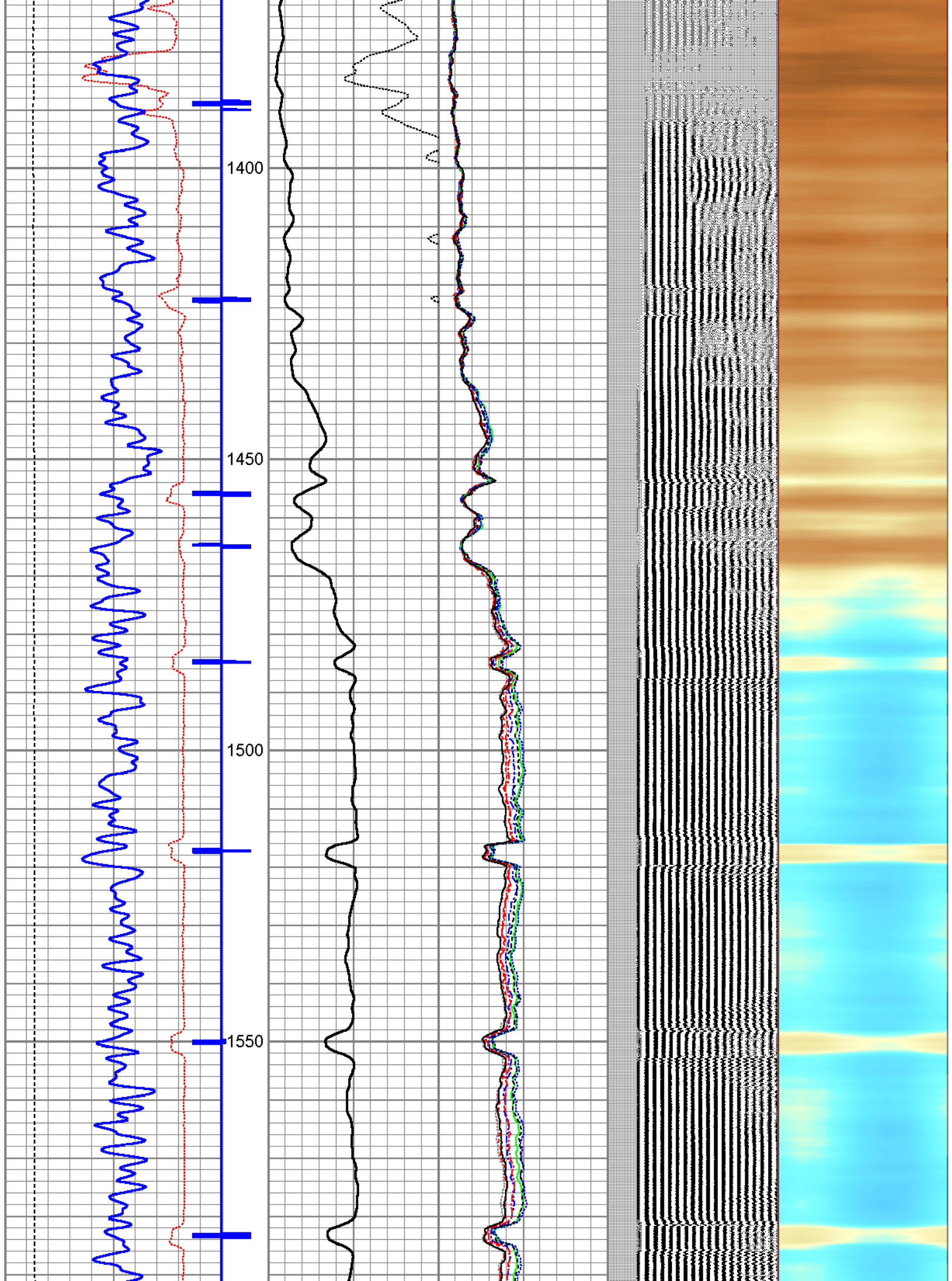




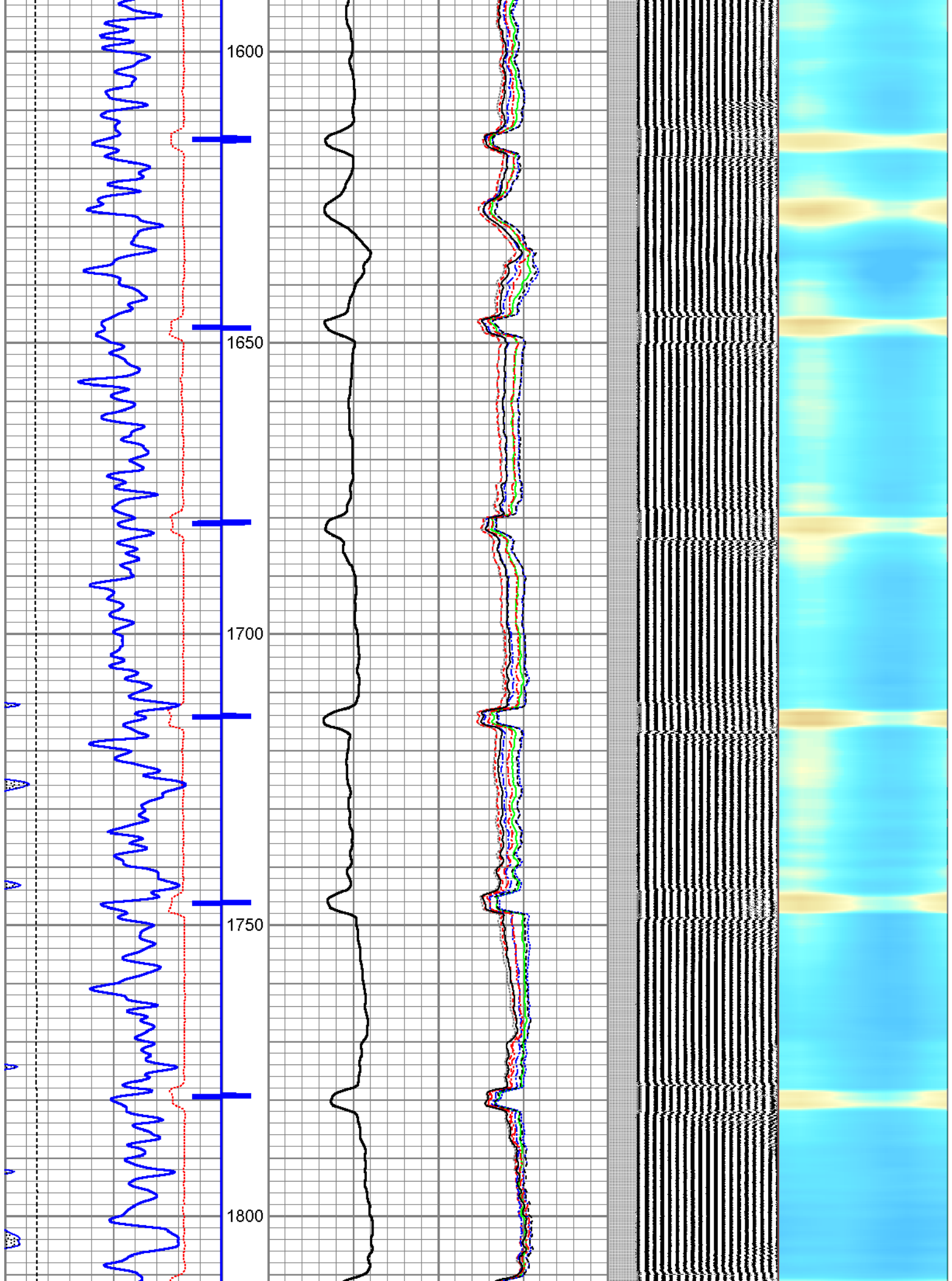


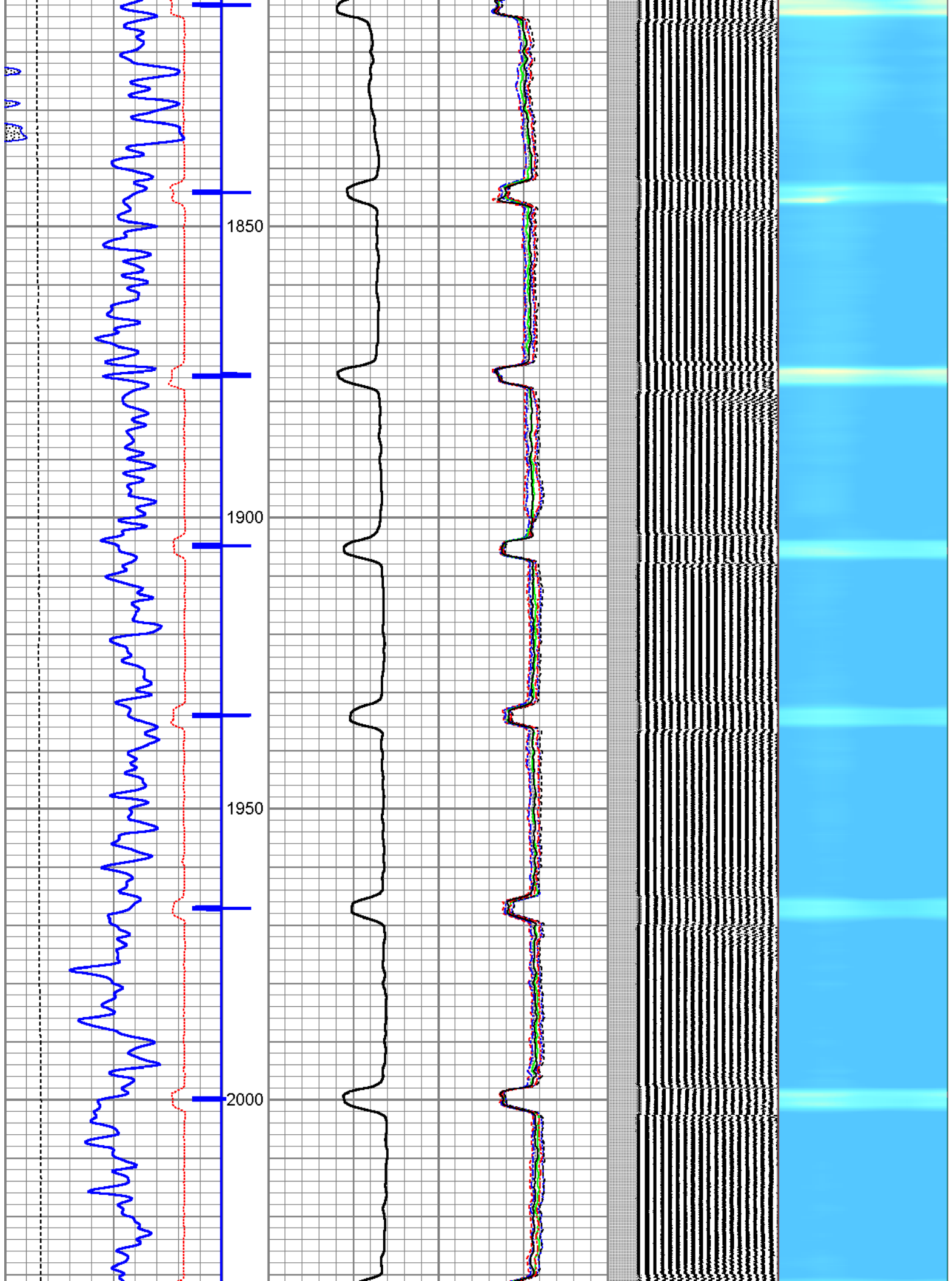




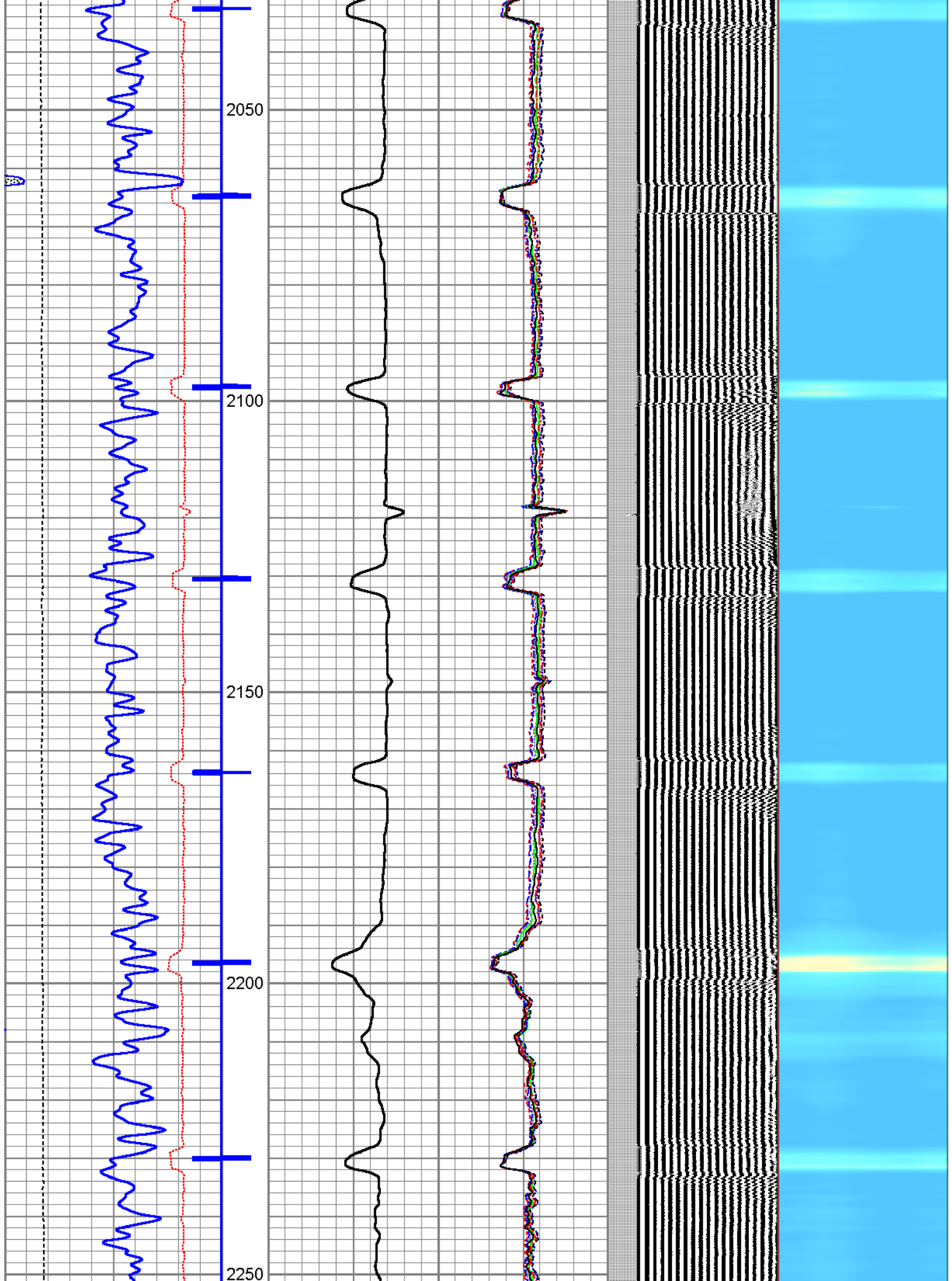


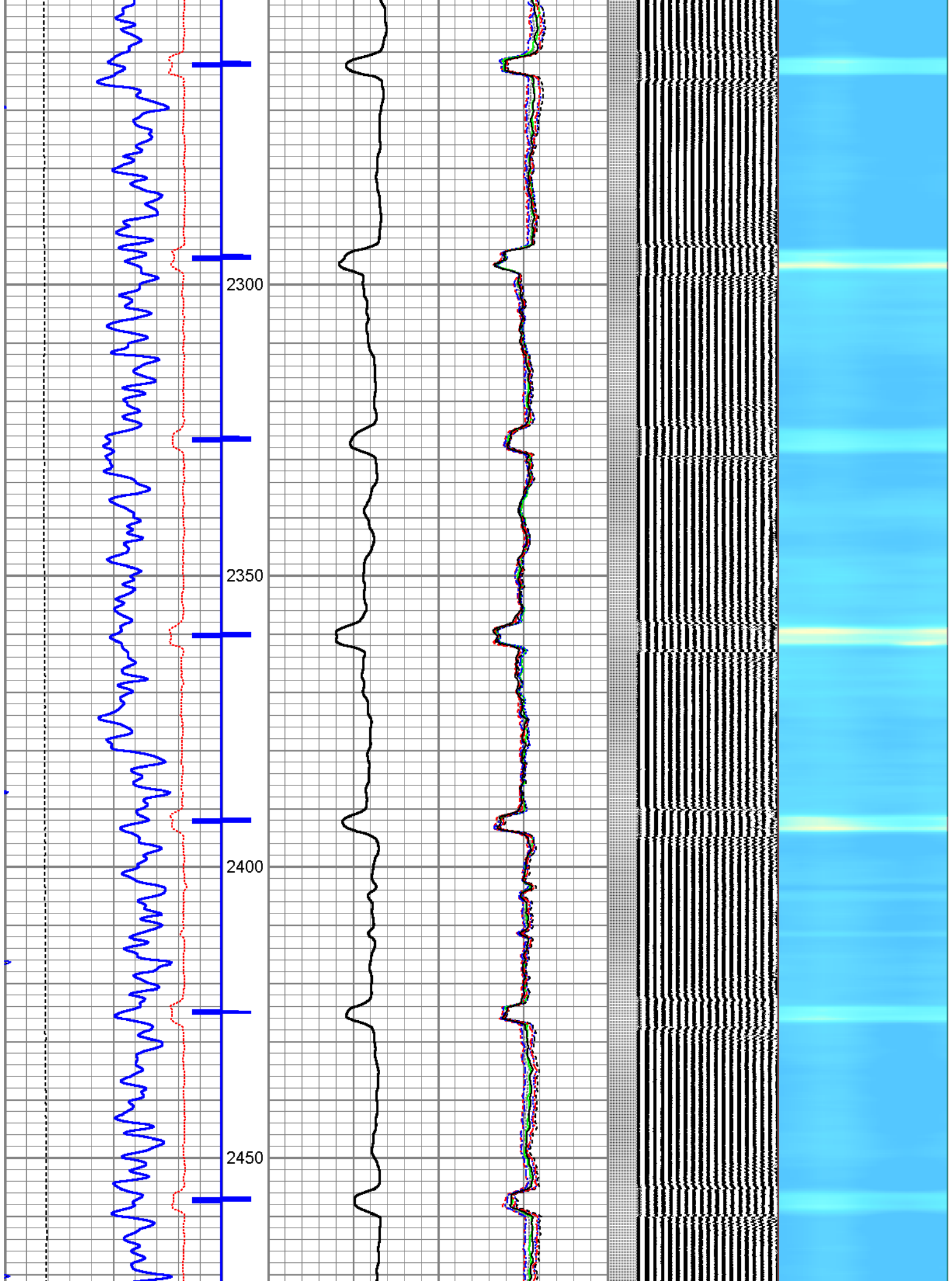


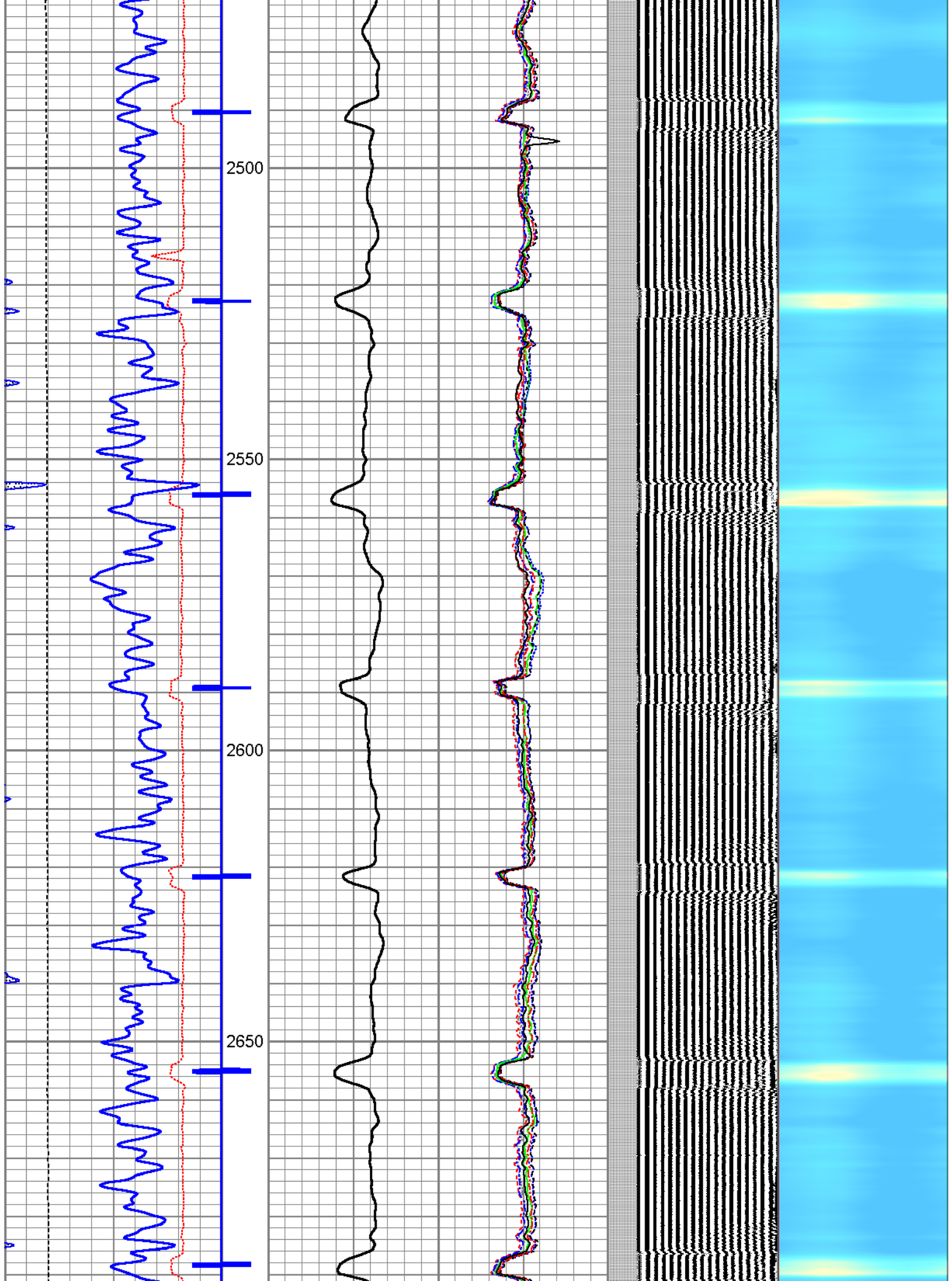




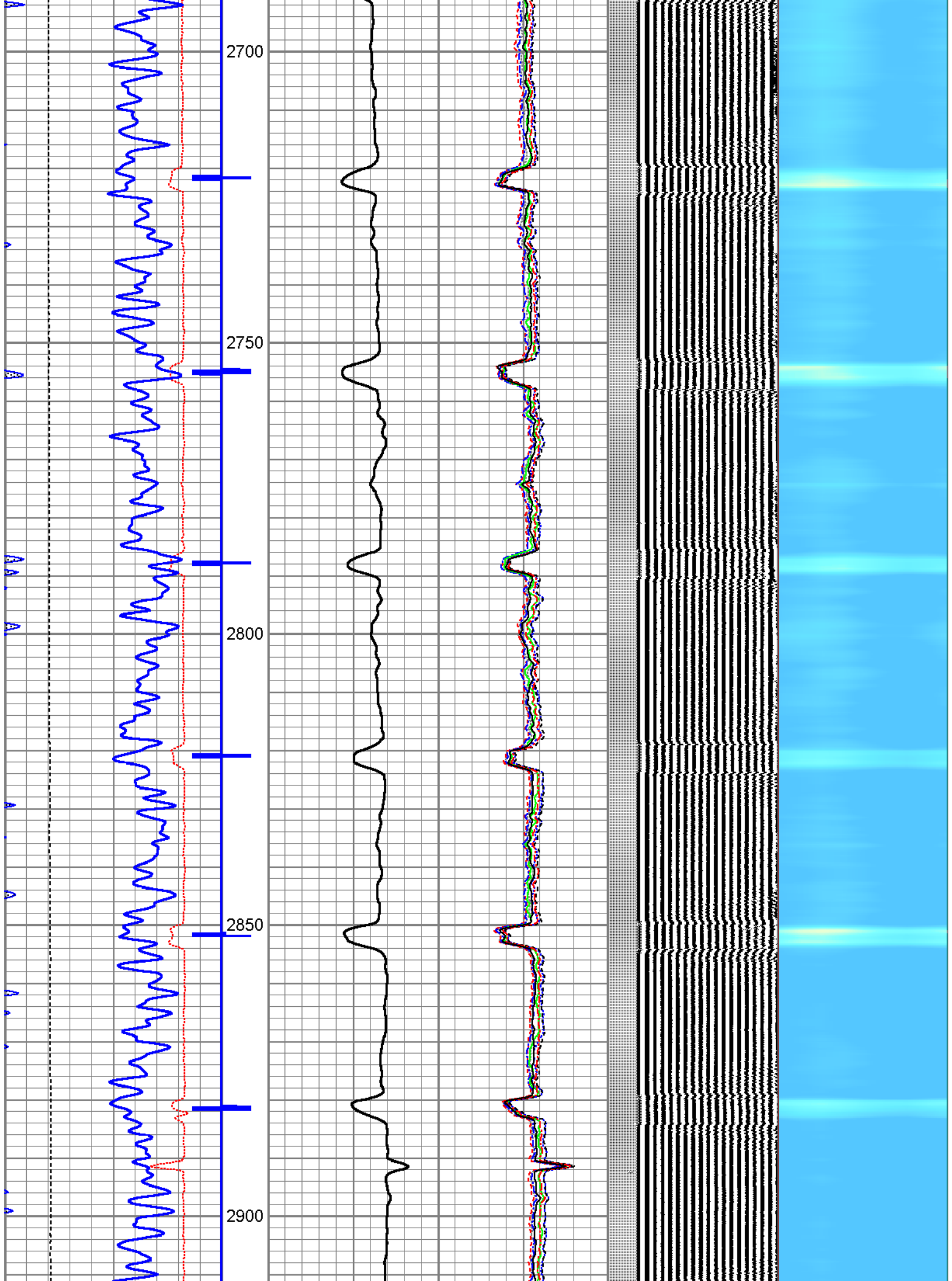




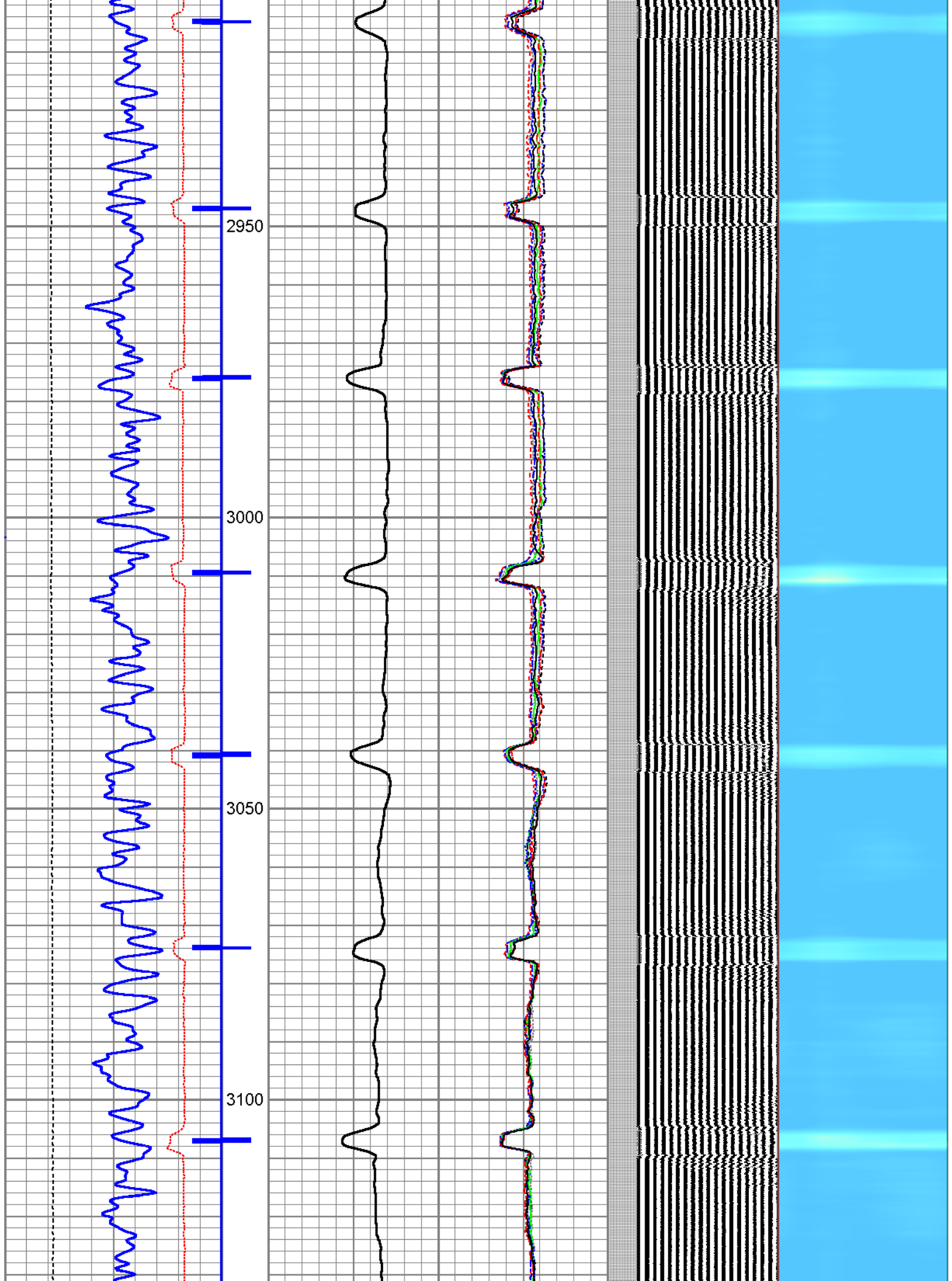


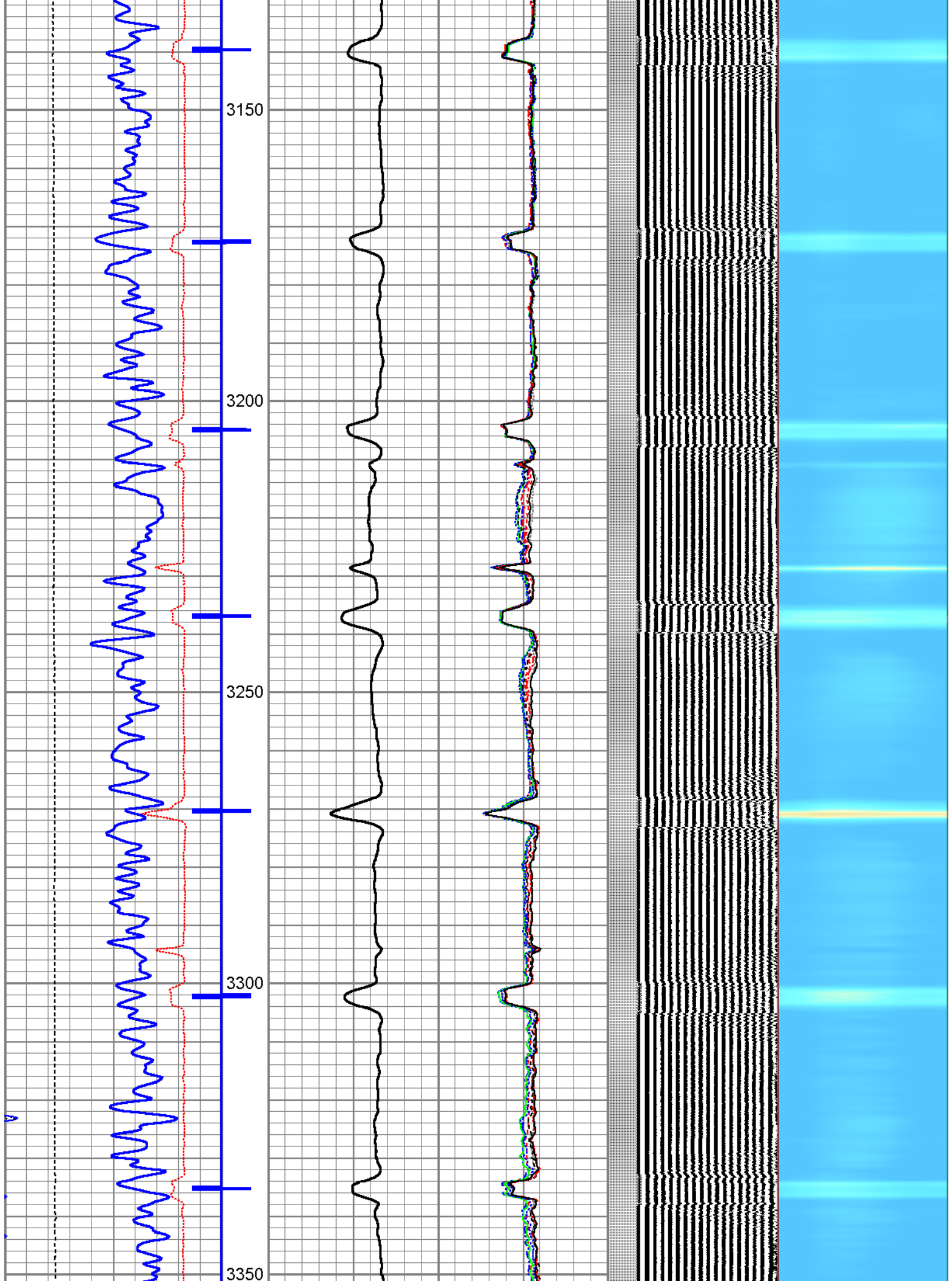


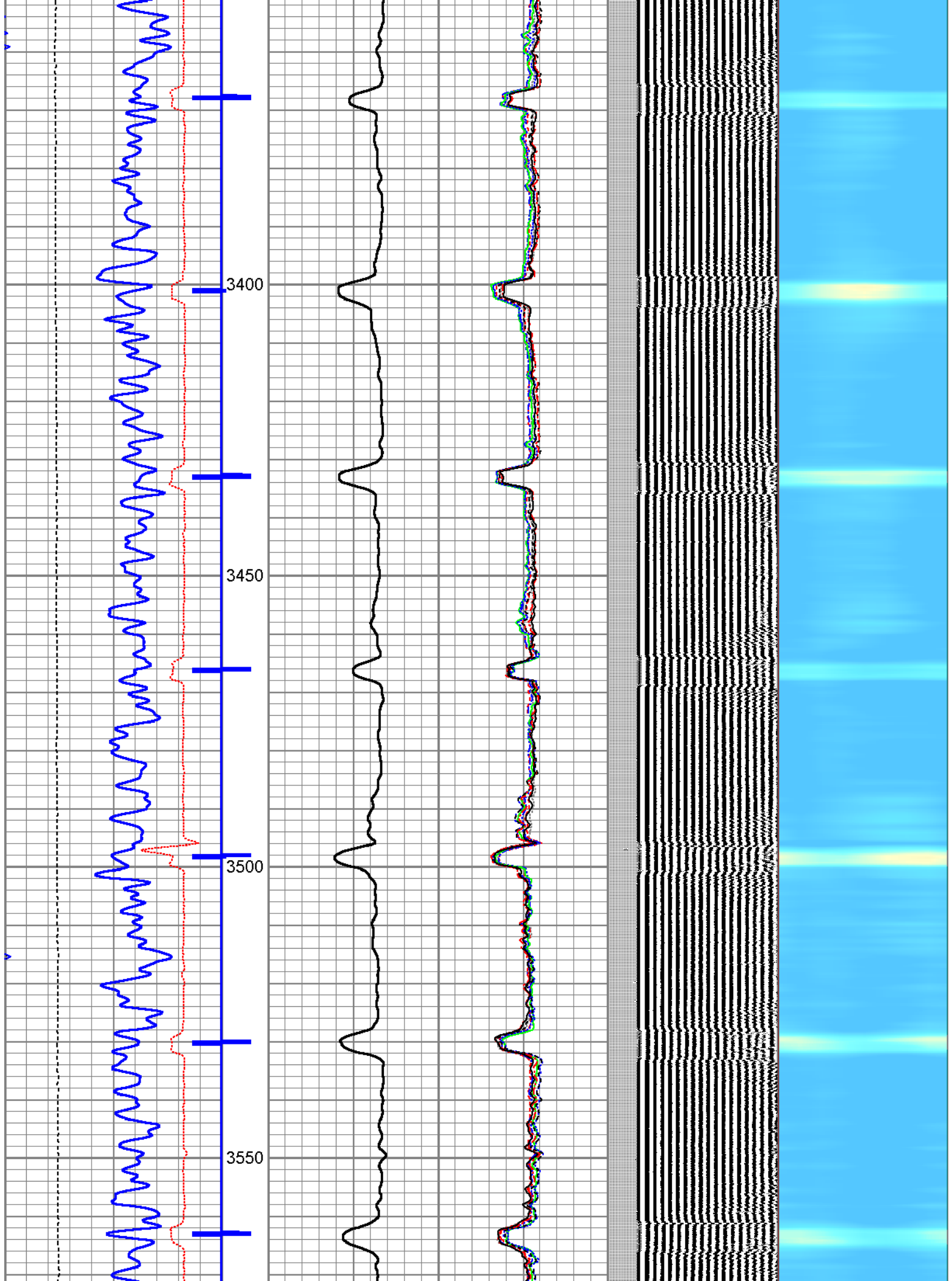




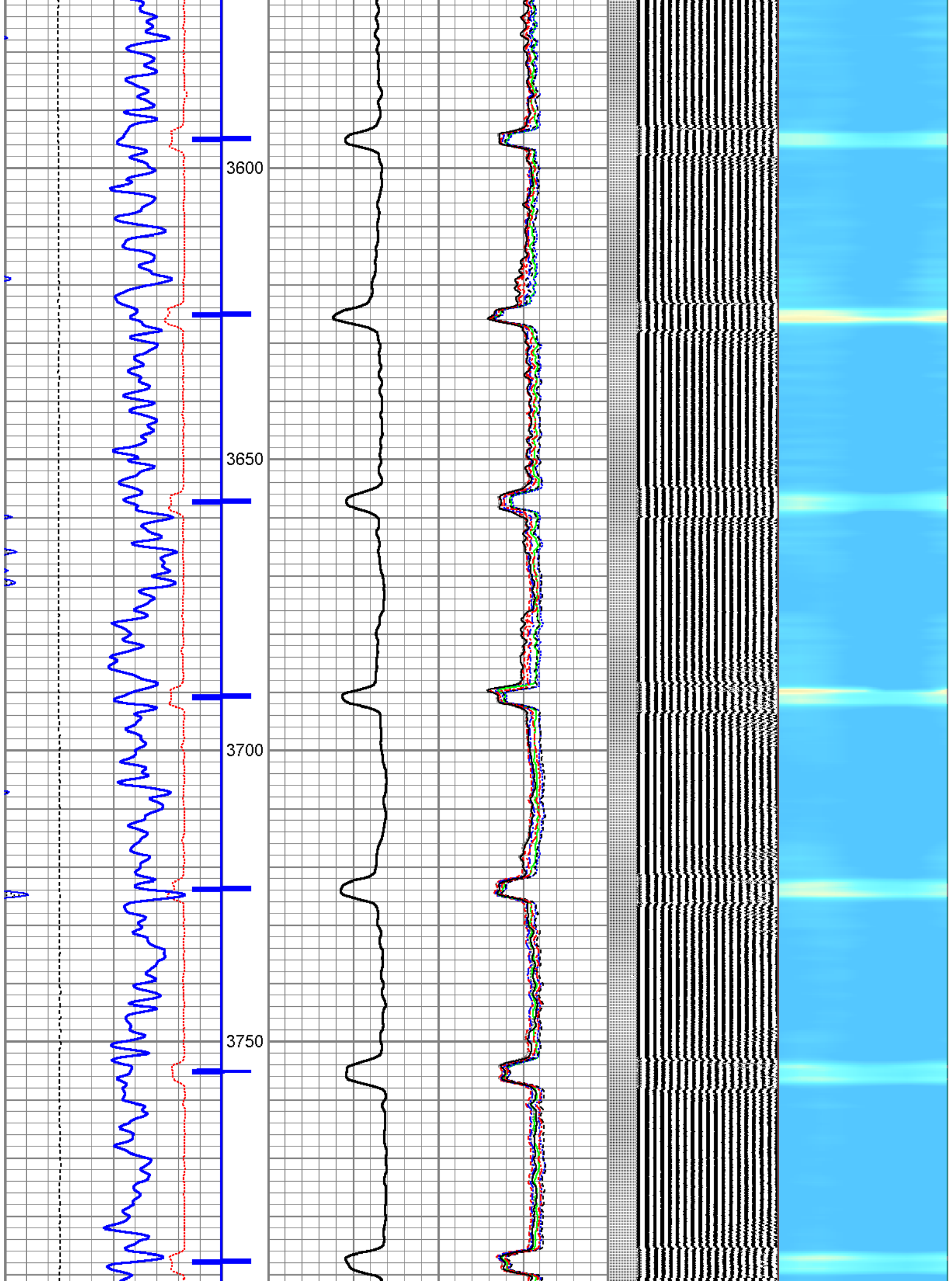




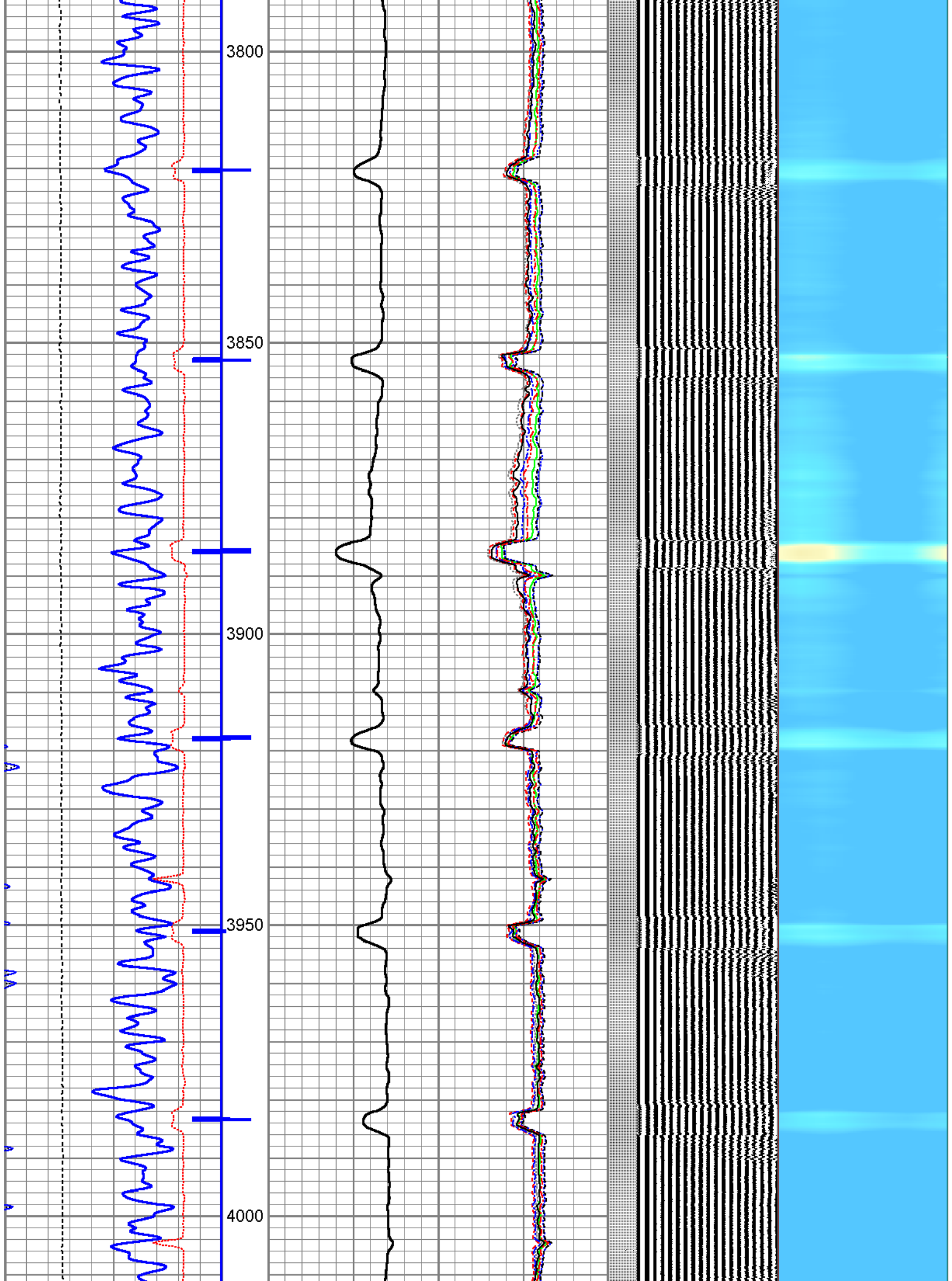


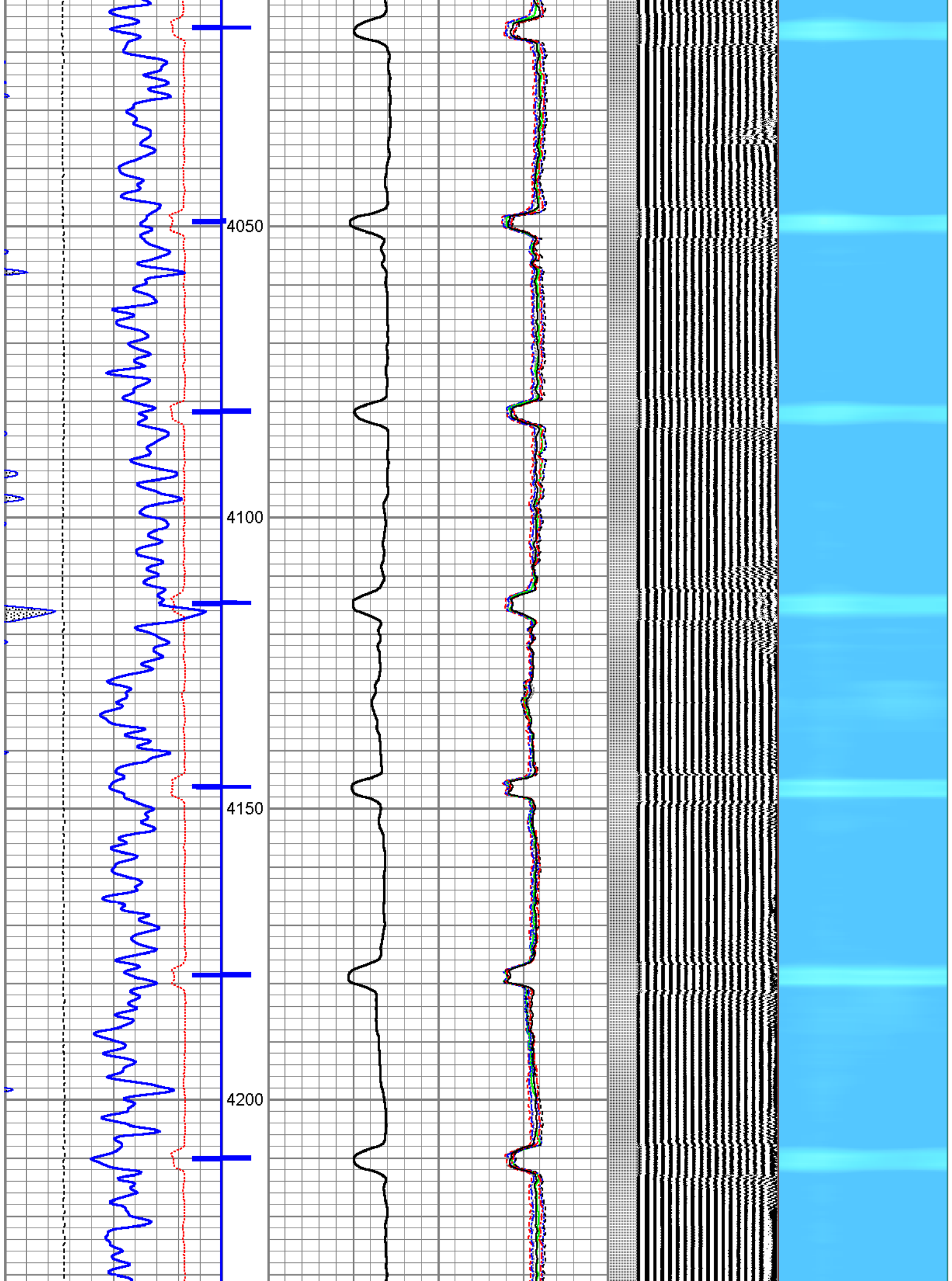


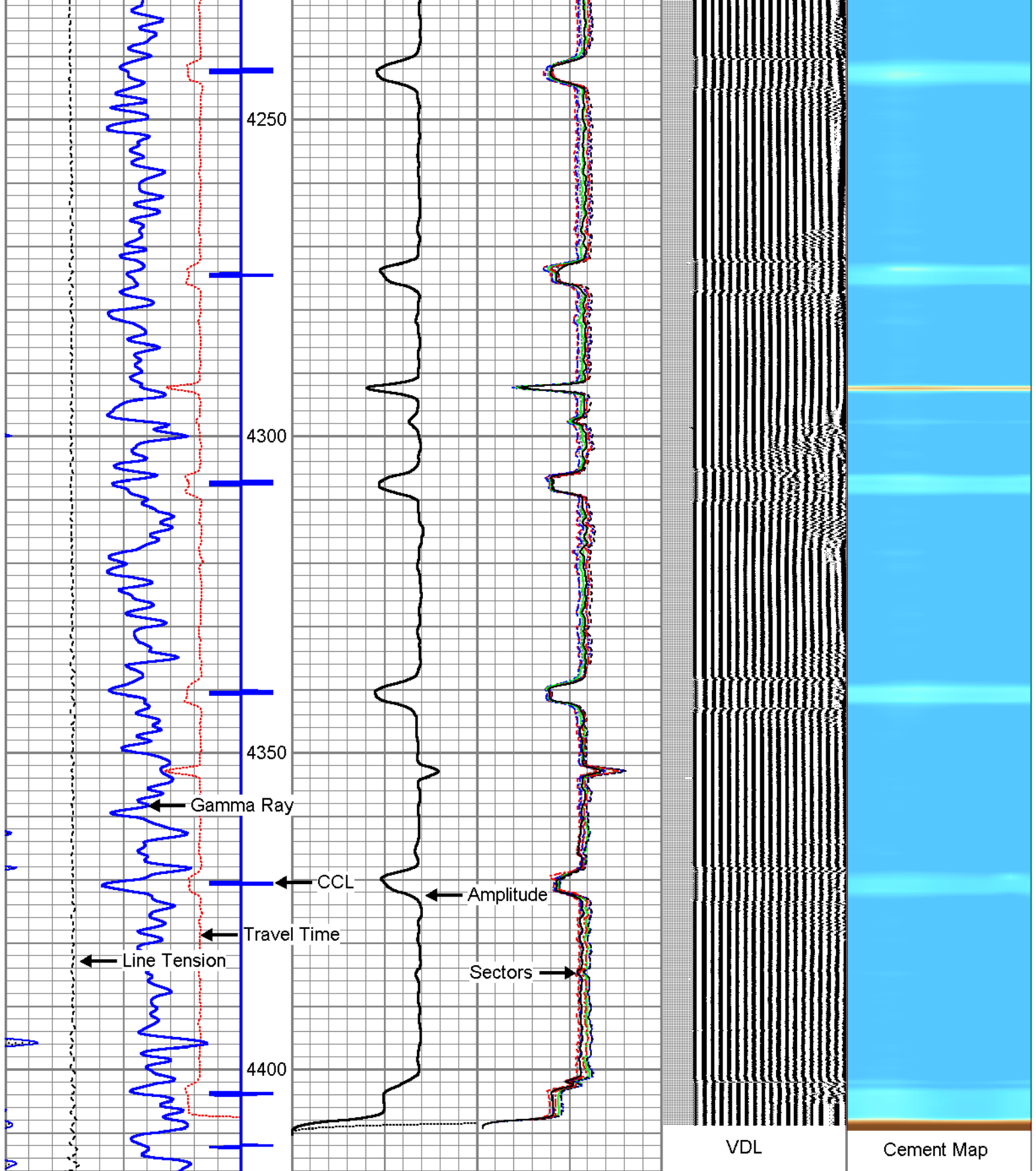












325	TT (usec)	225	Amplitude	-5	AMPS2	150	200	VDL	1200	Cement Map
0	GR (GAPI)	200	(mV)	0	100	-5	AMPS3	150		Cement Map
0	LTEN (lb)	3000	Amplified Amplitude	-5	AMPS4	150				
			(mV)	0	10	-5	AMPS5	150		
						-5	AMPS6	150		
						-5	AMPS7	150		
						-5	AMPS8	150		




Free Pipe Section

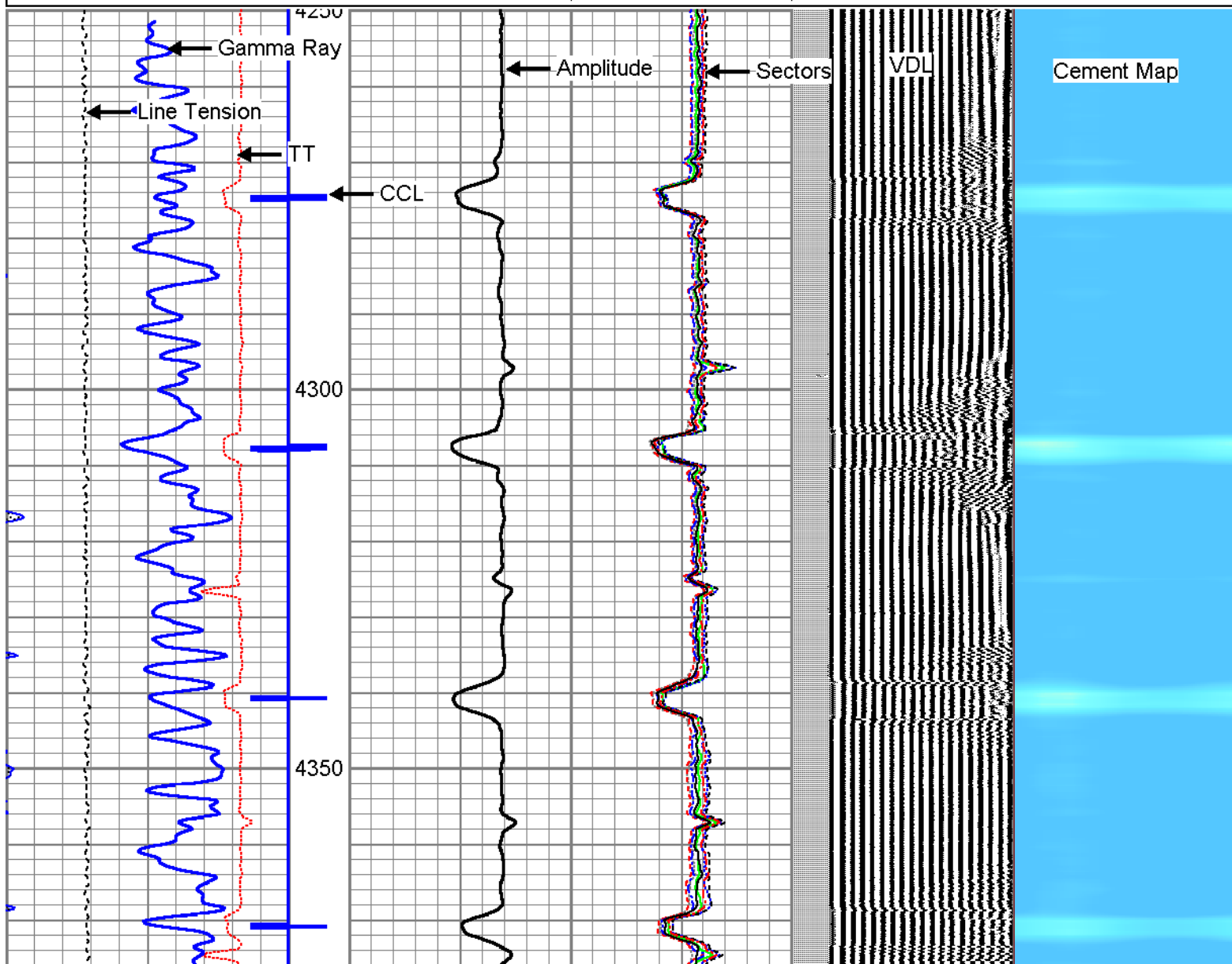


## REPEAT PASS

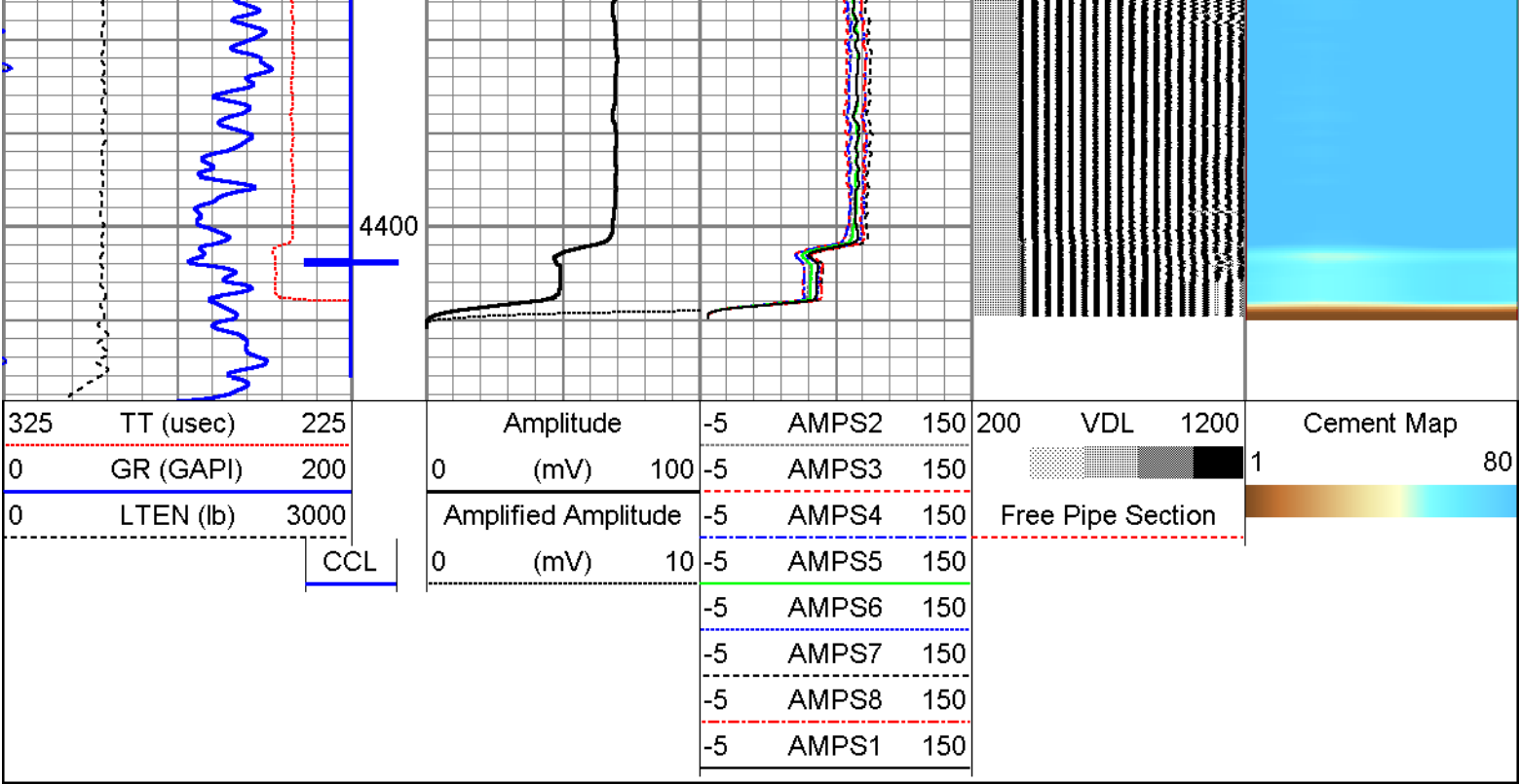
$$5'' = 100'$$

Database File: anderson\_mel\_gu\_1.db  
Dataset Pathname: pass5  
Presentation Format: scbl4\_5  
Dataset Creation: Tue Dec 08 12:39:19 2015 by Log 7.0 B1  
Charted by: Depth in Feet scaled 1:240

325	TT (usec)	225		Amplitude	-5	AMPS2	150	200	VDL	1200	Cement Map		
0	GR (GAPI)	200		(mV)	100	-5	AMPS3	150				1	80
0	LTEN (lb)	3000		Amplified Amplitude	-5	AMPS4	150		Free Pipe Section				
	CCL			(mV)	10	-5	AMPS5	150					
						-5	AMPS6	150					
						-5	AMPS7	150					
						-5	AMPS8	150					
						-5	AMPS1	150					








Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			1.4375CHD Titan Cable Head 1 7/16	1.00	1.44	10.00
			PTS275	2.83	2.75	
			RBT-Probe (110217) Probe 2.75" Radii Bond Tool	8.75	2.75	90.00
WV3FT	11.52					
WVFCAL	11.52					
WVFS1	11.52					
WVFS2	11.52					
WVFS3	11.52					
WVFS4	11.52					
WVFS5	11.52					
WVFS6	11.52					
WVFS7	11.52					
WVFS8	11.52					
WV5FT	10.52					

				PTS275	2.83	2.75
CCL	3.50					
IntTemp	2.00			GR-275D_INC (110254) 2-3/4" GR-CCL with Inclination	4.50	2.75
ACCX	1.83					
ACCY	1.83					
ACCZ	1.83					
GR	0.83					
Dataset: anderson_mel_gu_1.db: field/well/run1/pass7 Total Length: 19.92 ft Total Weight: 100.00 lb O.D. 2.75 in						

	Company	KERR-MCGEE OIL AND GAS
	Well	ANDERSON MEL GU 1
	Field	WATTENBERG
	County	WELD
	State	COLORADO